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09/939,200	08/24/2001	Andrea Califano	FGTI-P01-002	3382

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EXAMINER

ABRISHAMKAR, KAVEH

ART UNIT PAPER NUMBER

2131

DATE MAILED: 05/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/939,200

Applicant(s)

CALIFANO ET AL.

Examiner

Kaveh Abrishamkar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4 and 6-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4, and 6-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the amendment received on February 16, 2005. Claims 1-23 were originally received for consideration. Per the received amendment, claims 1,2,4,6-23 are amended, and claims 3 and 5 are cancelled. Claims 1,2,4, and 6-23 are currently being considered.

### ***Response to Arguments***

2. The applicant's argument received on February 16, 2005 were considered but were not persuasive for the following reasons:

Regarding amended independent claims 1 and 13, the applicant argues that the cited prior art (CPA), Lirov et al. (U.S. Patent No. 6,758,810), does not disclose "a private identity generator for generating a unique private identity for the individual independent of the identity information." This argument is not found persuasive. The CPA discloses that each user (patient) has an associated private key (private identity) which is independent of the identity information (column 5 lines 4-13). Each of these private keys (private identities) are encrypted and stored in a database. Therefore it is believed that the private identity is disclosed in the CPA by the virtue of the private keys individually generated for each user (patient). Furthermore, the applicant argues that

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the CPA does not teach "a means for employing the private identity as a relational link key for relating medical data associated with the individual to the encryption key associated with the individual." This argument is not found persuasive. The CPA disclose that the medical information is encrypted using a user's public key (encryption key associated with the individual) (column 5 lines 53-67). The private key (private identity) is then used to decrypt the sensitive medical data and retrieve the medical information (column 5 lines 65-67). Therefore, the medical information is related to the private key (private identity), as the private key (private identity) is the only means to retrieve the encrypted user medical information.

The rejection for the claims 1,2,4, and 6-23 are maintained as given below.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,2,4, and 6-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Lirov et al. (U.S. Patent 6,785,810).

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Regarding claim 1, Lirov discloses:

A system for securely storing medical data, comprising:

an input process allowing an individual to enter identity information and medical data to associate with the identity information and including a private identity generator for generating a unique private identity for the individual independent of the identity information (column 4 line 62 - column 5 line 13, column 9 line 62 – column 10 line 4);

an encryption key process for providing to each individual an encryption key for encrypting medical data associated with the individual (column 5 line 4 – column 6 line 38); and

a data table generator for storing medical data including encrypted medical data, in a table, whereby stored medical data from different individuals may be encrypted with different encryption keys (Figure 1a item 105, column 5 lines 53 – column 6 line 11).

Regarding claim 13, Lirov discloses:

A system for storing medical data, comprising:

an input process for allowing an individual to enter identity information and medical data to associate with the identity information (column 4 line 62 - column 5 line 3, column 9 line 62 – column 10 line 4);

a private identity generator for generating a unique private identity for the individual independent of the identity information (column 5 line 4 – column 6 line 38);

a unique private identity for the individual (column 5 line 4 – column 6 line 38);

an encryption key process for providing to the individual a respective encryption key for encrypting the medical data of the individual (column 5 line 4 – column 6 line 38);

a relational link generator for providing relational links for the medical data and the encryption key associated with the individual, whereby the medical data and encryption key can be stored in a table of a relational database (Figure 1a item 105, column 5 lines 53 – column 6 line 11).

Regarding claim 18, Lirov discloses:

A process for controlling access to medical data, comprising:

allowing an individual to provide medical data and identity information (column 4 line 62 - column 5 line 3, column 9 line 62 – column 10 line 4);

providing the individual with a private identity independent of the identity information and storing the medical data and identity information in tables of a relational database employing the private identity to provide a relational link to the medical and identity data (Figure 1a item 105, column 5 line 4 – column 6 line 38);

employing the private identity to create an encryption key for the respective individual (column 5 line 4 – column 6 line 38); and

encrypting, as a function of the encrypting key, medical data associated with the individual, whereby medical data of different individuals are encrypted with different respective encryption keys (column 5 line 4 – column 6 line 38).

Claim 2 is rejected as applied above in rejecting claim 1. Furthermore, Lirov discloses:

A system according to claim 1, further comprising a key table generator for storing the encryption key in a key table (Figure 1a item 115, column 5 lines 4 – 33).

Claim 14 is rejected as applied above in rejecting claim 13. Furthermore, Lirov discloses:

A system according to claim 13, wherein the relational link generator includes an encryption process for encrypting a relational link for accessing medical and/or the encryption key (column 5 lines 4 – 6, column 6 lines 12 – 27).

Claim 15 is rejected as applied above in rejecting claim 13. Furthermore, Lirov discloses:

A system according to claim 13, wherein the relational link generator includes a hash process for generating a relational link as a hash function of the private identity (column 5 lines 27 – 33, column 5 lines 12 – 27).

Claim 16 is rejected as applied above in rejecting claim 13. Furthermore, Lirov discloses:

A system according to claim 13, wherein the private identity generator includes a random number generator for generating the private identity as a function of a random number (column 5 line 4 – column 6 line 38).

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Claim 19 is rejected as applied above in rejecting claim 18. Furthermore, Lirov discloses:

A process according to claim 18, further comprising:  
allowing a medical professional to search the relational database to identify medical data of interest.(column 6 lines 18 – 38, column 7 lines 54 – 65).

Claim 20 is rejected as applied above in rejecting claim 18. Furthermore, Lirov discloses:

A process according to claim 18, further comprising:  
allowing a medical professional to request identity information associated with medical data in the relational data base, and employing the private identity to notify the respective individual of the request (column 6 lines 18 – 38, column 7 lines 54 – 65).

Claim 21 is rejected as applied above in rejecting claim 18. Furthermore, Lirov discloses:

A process according to claim 18, further comprising:  
allowing the individual to control access to the medical data of the individual (Table 1, column 4 lines 10 – 21).

Claim 22 is rejected as applied above in rejecting claim 18. Furthermore, Lirov discloses:

A process according to claim 18, further comprising:



allowing the individual to store portions of the medical data in the clear and portions in an encrypted form (column 4 line 62 – column 5 line 3).

Claim 4 is rejected as applied above in rejecting claim 1. Furthermore, Lirov discloses:

A system according to claim 1, wherein the private identity generator includes a random number generator for generating a random number for the private identity (column 5 line 4 – column 6 line 38).

Claim 6 is rejected as applied above in rejecting claim 1. Furthermore, Lirov discloses:

A system according to claim 1, further including:  
means for employing the private identity as a relational link key for relating medical data associated with the individual to the encryption key associated with the individual (column 5 lines 4 – 6, column 6 lines 12 – 27).

Claim 7 is rejected as applied above in rejecting claim 1. Furthermore, Lirov discloses:

A system according to claim 1, wherein the encryption key process includes:  
a process for generating the encryption key as a function of the private identity (column 5 line 4 – column 6 line 38).

Claim 8 is rejected as applied above in rejecting claim 1. Furthermore, Lirov discloses:

A system according to claim 1 wherein the encryption key process includes:

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a process for generating the encryption key as an asymmetric function of the private identity (column 5 line 4 – column 6 line 38).

Claim 9 is rejected as applied above in rejecting claim 1. Furthermore, Lirov discloses:

A system according to claim 1 wherein the encryption key process includes:

a process for generating the encryption key as a symmetric function of the private identity (column 5 line 4 – column 6 line 38).

Claim 10 is rejected as applied above in rejecting claim 2. Furthermore, Lirov discloses:

A system according to claim 2, further including:

a table encryption process for encrypting the key table to secure the encryption key stored therein (column 5 lines 4 – 13).

Claim 11 is rejected as applied above in rejecting claim 1. Furthermore, Lirov discloses:

A system according to claim 1, further comprising:

a relational link generator for processing the private identity to generate a relational link for associating medical data in the data table with a respective private identity (column 5 lines 4 – 6, column 6 lines 12 – 27).

Claim 12 is rejected as applied above in rejecting claim 11. Furthermore, Lirov discloses:

A system according to claim 11, wherein the relational link generator includes a process for processing the private identity selected from the group consisting of a symmetric key algorithm, an asymmetric key algorithm, an asymmetric key algorithm, and a hash algorithm (column 5 line 4 – column 6 line 38).

Claim 17 is rejected as applied above in rejecting claim 16. Furthermore, Lirov discloses:

A system according to claim 16, wherein the relational link generator includes a process for encrypting the private identity to provide an encrypted relational link (column 5 lines 4 – 13).

Claim 23 is rejected as applied above in rejecting claim 22. Furthermore, Lirov discloses:

A process according to claim 22, comprising:

allowing a medical professional to search the relational database (Table 1, column 4 lines 10 – 21, column 6 lines 18 – 38, column 7 lines 54 – 65).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaveh Abrishamkar whose telephone number is 571-272-3786. The examiner can normally be reached on Monday thru Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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